



***METROPOLITAN GOVERNMENT OF  
NASHVILLE AND DAVIDSON COUNTY***

***OFFICE OF INTERNAL AUDIT***

**Professional Audit and Advisory Service**

**FINAL REPORT**

**Audit of the Metropolitan Nashville Police Department's  
Crime Statistical Reporting Process**

Date Issued: June 24, 2011

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*The Metropolitan Nashville Office of Internal Audit is an independent audit agency  
reporting directly to the Metropolitan Nashville Audit Committee*

# EXECUTIVE SUMMARY

June 24, 2011

## What We Found

The Metro Nashville Office of Internal Audit performed an audit of the accuracy of crime statistics reporting by the Metropolitan Nashville Police Department (MNPd) at the request of the Honorable Mayor Karl Dean.

The Metro Nashville Office of Internal Audit did not observe any intentional manipulation of crime statistical data by the MNPd. However, some errors and omissions were observed in official crime counts reported to the Tennessee Bureau of Investigation and Federal Bureau of Investigation. Our audit results for the three year audit test period ending December 31, 2009 included:

- MNPd crime statistical data used for internal Metro Nashville decision making (including Metro Council, Mayoral, MNPd Annual, and COMPSTAT Reports) was found to be reasonably stated.
- MNPd crime data submitted to the Tennessee Bureau of Investigation was generally reasonably stated and sufficient to satisfy state standards during the three year period examined by the audit scope. However, issues such as computer scripting errors, human errors, and other complications with information technology systems hindered the transfer of required data. In all, 3.6% of the incidents within the audit scope were misreported to the Tennessee Bureau of Investigation. For instance:
  - Some 10,906 offense records were not sent to the Tennessee Bureau of Investigation as required due to computer scripting errors. Fully completed incident reports that mapped to 9,710 major crime offense records were excluded along with 1,196 major crime offense records which had never been finalized (had not passed one or more MNPd business validation rules).
  - At the same time, 407 non-reportable incidents were sent to the Tennessee Bureau of Investigation due to computer scripting errors.

MNPd stated that these computer scripting errors had no effect on how these cases were investigated, reported, analyzed or prosecuted.

- Testing of *status codes* (cleared by arrest, exception; unfounded, etc.) assigned to 565 incidents indicated that overall, the proper status code was assigned 93% of the time.

As an important process that impacts citizen's daily lives, crime statistics plays an important role on the deployment of public safety resources and local economic development. Due to this importance, additional rigor and control should be instilled to continuously improve the crime statistical reporting process. This report provides several recommendations to improve the overall system of controls beginning with the need to establish an overall qualified process owner.

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# **INTRODUCTION**

## **AUDIT INITIATION**

Beginning in the late spring of 2010, local entities in the Nashville, Tennessee area began questioning the integrity and accuracy of the crime report numbers reported by the Metro Nashville Police Department (MNPd). In response, Mayor Karl Dean submitted a letter to the Metro Nashville Office of Internal Audit on May 14, 2010, requesting that an audit be conducted on the Crime Statistics Reporting process at the MNPd. The Metro Nashville Office of Internal Audit presented the request to the Metropolitan Nashville Audit Committee who subsequently approved the request. The audit officially began on June 3, 2010.

## **SUBJECT MATTER EXPERT ASSISTANCE**

The Metro Nashville Office of Internal Audit contracted subject matter experts in crime statistics reporting to assist in conducting portions of the audit and to provide subject matter insight.

Elite Performance Auditing Consultants, LLC from Thousand Oaks, California are subject matter experts with prior experience conducting audits of police crime statistics and have a significant amount of law enforcement experience on their staff. Their website address is: <http://www.elitepacllc.com/>

Mary Karpos, PhD, Director of Policy, Planning, and Research for the Tennessee Department of Corrections, provided subject matter expertise. She is a recognized expert in the area of identifying police organizational practices that impact the reporting of information that becomes published in the Federal Bureau of Investigation Uniform Crime Report and quantitative research methodology.

Police Records and Information Management Group from Coral Gables, Florida has worked for over 40 police departments on projects related to crime statistics, records completion and storage, and police performance standards. Their website address is: <http://policerecordsmanagement.com/>

## **BACKGROUND**

Accurate and timely information regarding crime rates is important for local leaders in determining what crimes are being committed, where crimes are occurring, how frequently they are committed and how resources can best be deployed. High crime rates can stifle economic activity and diminish the quality of life for a community. Consequently, statistics related to crime have been an important topic of interest to government officials, local citizens and the media for decades. The ability of a local police department to properly capture, identify and report relevant crime statistics is critical in developing an effective crime prevention strategy.

Formal crime statistical reports were first published by the Federal Bureau of Investigation in 1930. The genesis for these publications came from a desire

by local police chiefs and local officials to combat a string of media reports purporting that a series of crime waves were terrorizing the country. The news reports in many instances were not based on facts. The development of crime statistics was an attempt to develop a consistent process that would serve as a barometer of crime in the United States.

Tennessee Code Annotated § 38-10-102 requires that:

*“All state, county, and municipal law enforcement and correctional agencies and courts shall submit to the director of the Tennessee Bureau of Investigation reports setting forth their activities in connection with law enforcement and criminal justice, including uniform crime reports.”*

All police jurisdictions within the State of Tennessee are required to capture, identify, define and report crime related data in a manner set forth by the Tennessee Bureau of Investigation. However, as will be described in subsequent parts of this report, the process of reporting crime related data is a very subjective and fluid process. There are also different methodologies for how crimes are classified, defined and reported. The particular methodology used by a jurisdiction has an effect on how the numbers are reported. The two methodologies relevant to this audit are discussed below.

## **Crime Statistical Reporting Methodologies**

The two primary crime reporting methodologies are the “Uniform Crime Report” format and “National Incident Based Reporting System” format.

Uniform Crime Report (UCR) is the most commonly used sources for crime information. The program was based upon work by the International Association of Chiefs of Police during the 1920s to create a uniform national set of crime statistics. This system is sometimes referred to as a “summary system”.

The Uniform Crime Report method segregates crimes into two groups: Part I and Part II. Part I crimes consist of the more serious categories of criminal offenses. There are eight Part I crimes. For Part I offenses, the Federal Bureau of Investigation applies what is called the ***hierarchy rule***. When more than one Part I offense has been committed in a single incident<sup>1</sup>, only the most serious (lowest number in chart) is reported<sup>2</sup>. The eight Part I crimes ranked within the hierarchy rule are listed below.

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<sup>1</sup>An “incident” is reported separately if it meets the “separation of time and space” rule.

<sup>2</sup> Arson is an exception to this rule and is always reported.

## Exhibit A – UCR Part I Crime Hierarchy

1. Homicide	5. Burglary
2. Forcible Rape	6. Larceny-Theft
3. Robbery	7. Motor Vehicle Theft
4. Aggravated Assault	8. Arson

Source: *Uniform Crime Reporting Handbook*

To illustrate how the “hierarchy rule” is applied, if a person is robbed and murdered, the only crime reported would be the murder. The robbery would not be included, because the murder is higher on the hierarchy listing than the robbery. Part II crimes are considered less serious crimes than Part I crimes and include simple assault, forgery, counterfeiting, fraud, embezzlement, weapon violations etc. These types of crimes, while important, do not get the same level of attention as Part I crimes.

The definition of particular crimes under the Uniform Crime Report do not match up precisely with Tennessee crime definitions. For example, under Tennessee Code Annotated, same sex rape is defined as a rape. However, the Uniform Crime Report definition excludes this from being reported as rape. Another example includes a situation whereby seven parties, are robbed at the same time. The Uniform Crime Report methodology dictates that only one robbery be reported but under incident based reporting, seven robberies would be recorded.

The Federal Bureau of Investigation utilizes Uniform Crime Reports to produce three annual publications, *Crime in the United States*, *Hate Crime Statistics*, and *Law Enforcement Officers Killed and Assaulted*.

National Incident Based Reporting (NIBRS) was developed in the 1980’s as police agencies and others saw a need for more detailed information. Incident reporting is generally seen as a system with more detailed information. The Justice Research and Statistics Association (funded by the US Bureau of Justice Assistance) cites eleven advantages of incident based reporting over summary reporting<sup>3</sup>. This method collects data on all of the elements associated with a crime, while not applying the previously discussed hierarchy rule. For example, if a person is robbed and also murdered, both the murder and robbery would be presented.

## Tennessee Bureau of Investigation

The Tennessee Bureau of Investigation has its own reporting requirements for local agencies called the “Tennessee Incident Based Reporting System” (TIBRS) which is very similar to the National Incident Based Reporting System (NIBRS) sponsored by the Federal Bureau of Investigation. The primary difference is that the Tennessee Bureau of Investigation method utilizes 30 additional informational fields. The MNPB is required to use Tennessee Incident Based Reporting System standards for reporting to the

<sup>3</sup> See: <http://www.jrsa.org/ibrrc/background-status.shtml>

Tennessee Bureau of Investigation and does not directly report to the Federal Bureau of Investigation. Rather, the Tennessee Bureau of Investigation forwards all required information for the State of Tennessee to the Federal Bureau of Investigation. The Tennessee Bureau of Investigation publishes a “*Tennessee Incident Based Reporting System Data Collection*” manual which serves as an instructional manual and guidelines on how local law enforcement agencies report crime. Crimes are classified into Part A crimes (most serious) or Part B crimes (less serious).

The MNPDP records crime data into an incident based database and forwards this incident based data to the Tennessee Bureau of Investigation as required.

## **MNPDP COMPSTAT**

The MNPDP also utilizes crime data from the incident database in a Uniform Crime Report type format<sup>4</sup> and uses it to report to Metropolitan Nashville Council and other external agencies. Additionally, this information is used in the MNPDP’s “COMPSTAT” program. The COMPSTAT program is MNPDP’s primary mechanism used to determine how, when and where to deploy its resources. Weekly COMPSTAT meetings are held so that the various precincts may address current crime conditions and possible reconfigurations of their resources.

## **Status of Crime Incidents**

Users of crime reports are often not only interested in the number of crimes being committed but also how many of these reported crimes are being solved, or “cleared”. This is known as the crime incident “status”.

A status of **open** means the crime incident is still considered active and has not been otherwise closed.

To be **cleared by arrest**, at least one person must be arrested, charged with the commission of the offense and turned over to the court for prosecution. Clearances are based on the number of offenses committed, not on the number of persons arrested. This prevents more arrests than offenses from being reported. Several crimes may be cleared by the arrest of one person or the arrest of many individuals may clear only one crime.

Instances of **cleared by exception** normally result when the identity of the offender has been established but other circumstances such as: the suspect died subsequent to the crime, the victim refuses to cooperate with the investigation, extradition is denied by another jurisdiction or various other circumstances meeting strict criteria.

A crime incident may be classified as **unfounded** if the incident claim or allegation is found to be false. Crime incidents that are unfounded are not

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<sup>4</sup> This MNPDP use of Uniform Crime Report *type data* should not be confused with FBI Uniform Crime Reports compiled by the FBI from information received from the Tennessee Bureau of Investigation.

forwarded to the Tennessee Bureau of Investigation and are not counted as crime incidents in any of the various crime reports.

## Limitations of Crime Statistical Reporting

There are many interested groups who use crime related statistics. Each user group has different needs and varying perspectives when viewing these numbers. As with any reporting methodology, there are inherent limitations that users should be aware of when relying on what is being reported. Some of the primary limitations and potential risks associated with any crime statistics system are summarized below.

- 1) Subjective nature of crime statistics reporting: The classification of a crime in many instances is a subjective exercise. Competent officers with several years of experience might, very easily and in good faith, classify a crime differently. How a crime is classified is also a function of the experience level of the officer. An example cited by literature on crime reporting illustrates this point very well: Two people are fighting in a bar parking lot with broken beer bottles, the officer responding to the incident could classify the crime as anything from disorderly conduct to assault with a deadly weapon. Users of crime statistics may read crime statistics reports without regard to the complexities imposed upon reporting by federal and state guidelines. The classification and status of incident reports may change over time as the incident is investigated, more information becomes known or the incident is processed through the District Attorney and justice system. Additionally, the number of crimes that will actually be reported can vary based on the number of victims tied to that specific incident.

Users should understand that comparing crime rates of a given jurisdiction, such as Metro Nashville to other jurisdictions is strongly discouraged by the Federal Bureau of Investigation and Tennessee Bureau of Investigation. The policies and procedures of crime reporting may differ between jurisdictions. A jurisdiction with loose controls may incorrectly produce numbers lower than a jurisdiction with tight controls.

- 2) Underreporting: For a crime to be counted, it must first be reported to the local police department. Many crimes go unreported each year. For example, according to the United States Bureau of Statistics, 46.3% of violent crimes and 37.2% of property crimes went unreported in 2007.
- 3) Influence of the Founding Process: Within every organization, an informal organization exists. This informal structure may or may not consistently conform to the directives and goals of formal management directives. While most police departments have a formal training process, the most vital aspect of the training comes during the time period in which new graduates of the academy are paired with more seasoned officers. If classification is based more on oral tradition and culture than formal guidelines, crimes may not be precisely classified according to requirement criteria.



- 4) Writing styles and experience of police officers and subsequent events: In most instances, after the police officers have left the scene, the involved parties' memories and the written report are all that remain to report the crime. Most important to classifying the crime is the written narrative. The omission or addition of even a single word can sometimes change the proper classification.
- 5) Inherent incentive to manipulate: By its very nature, an inherent risk exists to manipulate the crime information reporting. For example, city officials and local businesses do not want their city to be viewed as the "murder capital" or "motor theft" capital of the country. Police Chiefs want to deliver reduced crime. Police officers desire to be successful preventing crime and arresting offenders. Conversely, in times of shrinking budgets, governmental departments must compete for scarce resources. Crime rates are an area that affects a large portion of any given citizenry. Over-reporting crime rates could be used as an effective appeal for a bigger piece of local government limited budget funds. It is important to note this is not to suggest that the MNPd manipulated crime statistical reports. As stated earlier in this report, our office did not observe any intentional manipulation of crime statistical data by the MNPd.
- 6) Rewards tied to crime statistics: Processes for rewards and negative reinforcement may negatively affect the crime statistics reporting process. Positive or negative rewards related to the crime statistics process could encourage manipulation or omission of information.

## **Crime Statistical Reporting Participants**

Presented below is a brief overview of the major participants at the MNPd's crime statistics process.

The Emergency Communications Center (ECC): Receives calls from the public requesting service from the MNPd. The Emergency Communication Center is responsible for logging each call into VestaPhone and dispatching perspective police personnel to respond to the request for service.

Police Precincts: Officers, Sergeants, Crime Analysis Program Officers, Lieutenants, And Commanders: Answers request for service calls, writes police reports, classifies crimes. Sergeants and Crime Analysis Program officers review police reports to ensure classification matches narrative describing the crime and reviews numbers for reasonableness. Also, provides guidance and supervision to other police officers on report writing and crime classification.

MNPd Records Division: Inputs crime incident reports into the incident database.

MNPd Training Academy: Trains new recruits on laws, Metropolitan Nashville Code of Laws, Tennessee Code Annotated and report writing requirements.

*MNPD Crime Analysis Unit:* Responsible for accessing the MNPD Information Technology database and extracting crime statistical information for various users, primarily MNPD upper management and COMPSTAT report users.

*MNPD Information Technology Division:* Maintains the crime incident database. Forwards incident data to the Tennessee Bureau of Investigation as required.

*Tennessee Bureau of Investigation:* Receives a data download of crime statistical information from various law enforcement jurisdictions. Run various integrity checks to ensure data is compliant with criteria. Publishes various crime reports for Tennessee crime and submits crime incident data to the Federal Bureau of Investigation.

*Federal Bureau of Investigation:* Receives data downloads from the Tennessee Bureau of Investigation regarding crime statistics of various jurisdictions, converts data to Uniform Crime Report format and produces reports in incident based format and Uniform Crime report format.

*Users of Crime Data:* Includes MNPD command, Mayor's Office, Metropolitan Nashville Council, Federal Bureau of Investigation, Tennessee Bureau of Investigation, citizen groups, etc.

## **Information Technology**

There are several information technology systems utilized in the crime statistical reporting process which have been described in the report above. A brief listing and summary of each system and how it contributes to the process is presented below:

*Incident Data Entry System (incident database):* The database used by the MNPD to store crime related data. The MNPD Information Technology Division is responsible for custody and security of this database. This system was decommissioned on December 28, 2009 when it was replaced by the newly implemented Advanced Records Management System (see below).

*Incident Tennessee Incident Based Reporting System Interface:* The MNPD Information Technology Division in-house developed application used to identify Tennessee Incident Based Reporting System records in the incident database. The application will translate information in the incident database into the interface format required by the Tennessee Bureau of Investigation. This system was decommissioned on December 28, 2009, when it was replaced by the newly implemented Advanced Records Management System.

*Advanced Records Management System (ARMS):* The replacement system for the Incident Data Entry System that facilitates the data entry of incident and other police field reports by officers using mobile computing terminals. This system is often referred to as ARMS.

*Teleserve:* System linked to the incident database and utilized by the MNPD Records Division to capture and record crime data over the telephone.

VestaPhone: System utilized by the Emergency Communication Center. VestaPhone tracks all calls received at the Emergency Communication Center and is used to collect information such as, caller identification, time of call, address where call was made from, and geographical mapping. Data entered into VestaPhone is linked and transmitted to the Computer Aided Dispatch system.

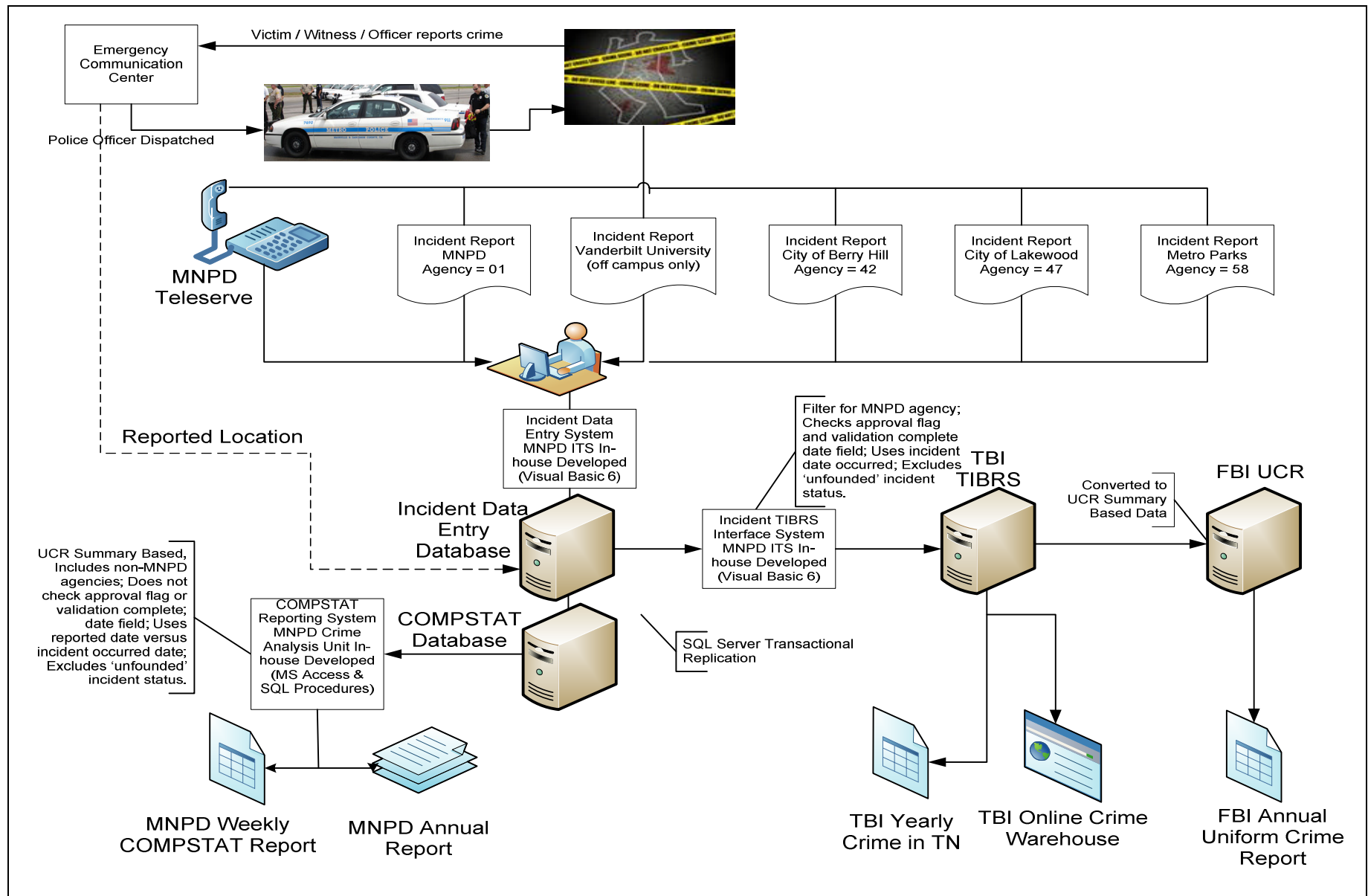
Computer Aided Dispatch: Another system utilized by the Emergency Communications Center. Contains the narrative describing the reason the Emergency Communications Center received the call, and the initial classification. This system is also used to track the location and availability of police officers on duty to facilitate the efficient and effective dispatching of officers.

Motorola Chris Net: System utilized by the Tennessee Bureau of Investigation to report crime related data for the State. This system executes validation and edit processes to help ensure the integrity of the data.

COMPSTAT: MNPB Crime Analysis Unit computer query and reporting system used to create internal crime statistics management reports.

Questys Document Management System: MNPB document management system used to scan and store images of incident reports.

## Exhibit B – Overview of MNPD Crime Statistical Reporting Process Pre-Advance Reporting Management System (Prior to December 2009)



## Crime Statistics Quality Control Audits

Some quality control audits exist to provide assurance of the accuracy and integrity of the crime information reported. They are summarized below:

Tennessee Bureau of Investigation Audits: The Tennessee Bureau of Investigation audits reporting jurisdictions once every three years. The audits typically cover a one week period of data. A random sample of incidents, issued during the specified time period, is reviewed for proper offense category, property and property value reporting, victim and suspect information, etc. The MNPDP was audited by the Tennessee Bureau of Investigation in 2006 and 2009. The 2006 audit examined 1,561 incident reports and found 206 reports contained errors, or a 13.6% error rate. The 2009 audit examined 1,215 incident reports and found that 140 reports contained errors, an 11.5% error rate.

Federal Bureau of Investigation Audits: Every three years, the Federal Bureau of Investigation audits the crime statistics submitted by the Tennessee Bureau of Investigation. The most recent Federal Bureau of Investigation Audit of agencies in Tennessee was conducted in May 2007. The audit reviews data elements (offense, victim, property, etc.) and administrative requirements (clearance criteria, etc.) In the 2007 audit the Federal Bureau of Investigation found nine classification discrepancies when reviewing 139 MNPDP reports and also found MNPDP non-compliant for two procedure issues. All other criteria were met.

MNPDP Crime Analysis Unit Audits: The MNPDP Crime Analysis Unit performs data process analysis audits on a monthly basis and releases a Data Process Audit Analysis Report which examines efficiencies in different areas in the crime reporting process and identifies trends in reporting. Some of the topics discussed in the reports include the number of “send-backs” of incident reports processed by MNPDP Records Division (a measure of the efficiency and accuracy with which incident reports are completed), a comparison of calls for service regarding serious crimes versus trends in classification of incident reports filed during the same time period and time series analysis of the number of supplement reports filed. This information is used to refine and ensure the integrity of crime analysis. If the MNPDP sees an unusually high fluctuation in crime rates, the MNPDP Crime Analysis Unit will investigate the causes of the fluctuation. The purpose of these procedures is to identify trends that would likely result in reporting errors.

Lieutenant Surveys: Surveys conducted on a monthly basis by a Patrol Lieutenant at each precinct. The results of the monthly surveys are released annually in a Lieutenant Survey Analysis report. The MNPDP Crime Analysis Unit generates a random sample of victims of crimes that have been reported in each of the six precincts. These victims are contacted by Patrol Lieutenants to determine if the information contained in the incident report accurately and adequately describes the events that occurred, in the opinion of the victim. This procedure provides a critical tool for validating the integrity of information in the report. It also serves as an important method of ensuring police work was conducted properly and enhances the community outreach goals of the MNPDP.

The MNPd released Lieutenant Survey Analysis reports for calendar years 2006, 2007 and 2008. For the 2008 report, there were 53,666 victims eligible to participate in the survey. Attempts were made by MNPd to contact 818 victims. Results from the victim survey portion of the 2008 Lieutenant Survey Analysis indicate that crimes are classified with 99.8% accuracy. One out of 582<sup>5</sup> respondents stated that the offense description did not match the incident reported to police. Additionally, 99.8% of reviewing Lieutenants reported that the offenses reviewed were accurately classified. The 2007 and 2006 reports indicate a similar level accuracy in classification, per victim input, at 99% and 99.2%, respectively. The Metro Nashville Office of Internal Audit performed no test work to validate any of these results.

## OBJECTIVES AND CONCLUSIONS

1. *Was MNPd crime data used for internal decision making (including Metro Council, Mayoral, MNPd Annual and COMPSTAT Reports) reasonably stated (using a tolerable error rate of 10%) from January 1, 2007, through December 31, 2009?*

Yes. Based on the overall analysis of the test work performed during the audit, the Metro Nashville Office of Internal Audit concluded that crime data was reasonably stated with the degree of certainty required from January 1, 2007, through December 31, 2009.

In making this conclusion, some of the factors considered were:

- All incident reports resident in the MNPd incident database (whether validated or not) were used for internal and external reporting. The 11,313 reports with Tennessee Bureau of Investigation reporting problems (discussed below) had no effect on the internal MNPd reporting. Thus, the MNPd internally generated reports and the crime reports used by the Tennessee Bureau of Investigation were not congruent<sup>6</sup>.
- A total of 6.4% of sampled incident reports (36 of 565) were found to be in error with issues that affected the integrity of the MNPd internal reports. The specific issues are summarized below:
  - 1.6% of tested reports (9 of 565) were found to have been incorrectly entered into the database and were incorrectly reported.
  - 4.8% of tested reports (27 of 565) were in error with regard to assigned offense code (see note below).

Note: Offense code testing was performed by subject matter experts who assigned offense codes to incident report narratives using the Tennessee Incident Based Reporting System (TIBRS) manual and the MNPd Report Writing Manual as criteria and then compared outcomes to offense codes recorded on the incident report.

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<sup>5</sup> MNPd 2008 Lieutenant Survey dated May 1, 2009.

<sup>6</sup> Additionally, since the Federal Bureau of Investigation Uniform Crime Reports are derived from Tennessee Bureau of Investigation data, they are also not congruent with the MNPd reports.

- Discussion with crime statistics experts in several areas of the county induced the following comments about crime statistics reporting systems:

*“Ten percent is what I have understood. The issue of the error rate is a very elusive one due to the variations in reporting standards from jurisdiction to jurisdiction. The differences in report writing standards among agencies vary greatly. The majority of police agencies in the country don't even have a report writing manual, resulting in very non-uniform reporting. Lastly, the issue of interpretation with regards to classifications certainly comes into play as well.” – Police Records Management, Inc.*

*“It is up to the respective law enforcement agency to report crime accurately. There is no established acceptable error rate in California, or any of the local law enforcement agencies here. A study on Uniform Crime Report crime classification in West Virginia found error rates were higher than 10% for three law enforcement agencies selected as part of the study.” – Elite Performance Auditing Consultants, LLC.*

In determining that the MNPDP crime data and internal reports were reasonably stated, we searched for any criteria with which to measure the error rate results against. The Tennessee Bureau of Investigation uses an unofficial error rate of 10% and states that *“almost no departments surveyed test lower”*. While everyone involved, would like 100% accurate reports, there are numerous limitations and hurdles to overcome in the area of crime statistics reporting. For this reason we believe the MNPDP internal crime statistics data and reports were reasonably stated for the period of January 1, 2007, through December 31, 2009.

2. *Were MNPDP crime statistical data provided to the Tennessee Bureau of Investigation reasonably stated (using a tolerable error rate of 10%) from January 1, 2007, through December 31, 2009?*

Generally yes. MNPDP crime data submitted to the Tennessee Bureau of Investigation were generally sufficient to satisfy state standards during the three year period examined by the audit scope. However, issues such as script errors, human errors and other complications with information technology systems hindered the transfer of required data.

In making this conclusion, some of the following factors should be noted:

- Some 10,906 offense records were not sent to the Tennessee Bureau of Investigation as required due to computer scripting errors. Fully completed incident reports that mapped to 9,710 major crime offense records were excluded along with 1,196 major crime offense records which had never been finalized (had not passed one or more MNPDP business validation rules).

- Computer scripting errors also caused 407 non-reportable incidents to be sent to the Tennessee Bureau of Investigation when not required.
- These 11,313 mis-reported crime incident reports mentioned above represent 3.6% of the 316,739 incident reports from the three-year audit scope period noted above<sup>7</sup>. Correspondingly, 3.7% of sampled reports (21 of 565) were found to be resident in this same misreported incident report set.
- With regard to completeness and the correct entry of an incident report into the MNPDP incident database, nine of 565 reports tested (1.6%) had not been accurately entered into the incident database causing the offense code in the reporting systems to be different from the offense stated on the hard copy of the actual report.
- Correctly classifying an incident by offense code is critical to ensuring that crime statistical reports are properly stated. Given the subjective nature of crime statistical reporting, some variance is to be expected. As stated above, the Tennessee Bureau of Investigation uses an unofficial 10% tolerable error rate (includes offense code errors and other reporting errors) when performing their Quality Assurance Reviews (although they admit that “very few agencies go below that, some go much higher”). The Quality Assurance Reviews test seven basic elements (including offense code, whether the incident was reported to them, missing information on the report, etc.) when performing their review. Our testing results are indicated below.
  - 1.6% of the tested reports (9 of 565) were found to have been incorrectly entered into the database and were incorrectly reported.
  - 4.8% tested reports (27 of 565) were in error with regard to offense code.
  - 3.7% of tested reports (21 of 565) were either not sent or sent in error to the Tennessee Bureau of Investigation.

MNPDP stated that the computer scripting errors listed above had no effect on how these cases were investigated, reported, analyzed or prosecuted.

In summary, our overall computed error rate totaled 10.1% (57 of 565). This information taken in aggregate, contributed to the overall conclusion of the reliability of the MNPDP crime statistics reported to the Tennessee Bureau of Investigation (see Observations B and C).

3. *Did MNPDP leadership personnel provide undue influence to manipulate or misrepresent crime statistical reporting information?*

No. The Metro Nashville Office of Internal Audit did not find that crime information was being intentionally manipulated or misrepresented.

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<sup>7</sup> Although there were actually 337,864 computer complaint records, 20,786 were found to be incomplete due to data entry errors not being purged from the Incident Data Entry System .



During the audit, 74 MNPDP personnel were interviewed. While several of those parties had a negative view of the process and/or had little faith in the accuracy of the numbers reported, none explicitly stated that they themselves had been pressured to downgrade crimes. The Metro Nashville Office of Internal Audit also reviewed various MNPDP personnel performance evaluations to determine if rewards were tied to crime statistics. Specifically, our office reviewed three years of performance evaluations for 35 MNPDP employees among seven grade levels and found no evidence that performance was tied to crime statistics.

The Metro Nashville Office of Internal Audit also obtained the emails of five key MNPDP staff members who were heavily involved in the crime statistics process. Utilizing a special software package to perform various key word searches, the emails were reviewed for any evidence that upper MNPDP management was applying undue influence on the crime statistics process. No evidence to support such activities was found.

4. *Could the procedures and controls in place to provide assurance that Crime Statistical Reports were complete, accurate, timely, and properly stated be improved?*

Yes. The Metro Nashville Office of Internal Audit reviewed documents, interviewed key staff, flow-charted processes and observed MNPDP personnel in order to ascertain the MNPDP control environment with regard to crime statistics. A listing of control strengths and weaknesses are presented below:

Control Strengths:

- Highly Developed Procedures/Strong Communication: Part of any effective control environment is how well management communicates its directives and values to an organization. The communications component at the MNPDP appeared to be very strong. Written procedures exist in the form of report writing guides and various policies and procedures. MNPDP personnel were well versed of their role and the procedures for each precinct were consistent with each other. The MNPDP has a very detailed, 47 page ethical training manual.
- Periodic Audits: The police department is subject to mandated audits by the Tennessee Bureau of Investigation and Federal Bureau of Investigation. One of the objectives for these audits is to ensure that crimes are properly classified and clearance rates are properly reported. Knowing that such audits will occur on a routine basis provides a deterrent factor for parties who would try to falsely report numbers.
- Training Process: All MNPDP police officers must complete a training program before being accepted into the force. This program allots approximately 100 hours to teaching cadets about the legal system as well as applicable Tennessee Code Annotated and/or Metropolitan Nashville Code of Laws. The class also teaches the cadets the proper methodology in writing a crime incident report. Police officers are then assigned under the guidance of a specific officer for the first six months they are in the field. This assigned officer serves as a mentor on how to

properly classify crimes and write reports. Finally, supervisors review each report which can serve as a training opportunity if reports are being misclassified.

- Review Process: The MNPDP has instituted a number of controls that require a multi-layered police review process of all crime incident reports to help ensure that crimes are properly classified. Police officers have victims (except for crimes like suicide) review and sign the report to help ensure the narrative is accurate. All police reports are then reviewed by a sergeant or higher at the precinct level and then again by a Crime Analysis Program Officer, investigative officer and a MNPDP Records staff member. The testing performed as part of this audit indicated that MNPDP incident reports did show evidence of supervisory review.

#### Control Weaknesses

- Lack of a process owner (see Observation A).
- Lack of effective controls to ensure that all reportable incidents are entered into the database and reported in crime statistical reports (see Observation B).
- Inconsistent quality of narratives used to help ensure incidents are properly classified (see Observation C).
- Lack of a comprehensive set of written procedures for the crime statistical reporting process (see Observation A).
- Training (see Observation D).
- No effective procedures to reconcile the number of calls received by the Emergency Communications Center with incident reports created (see Observation B).
- No effective procedures to ensure that all incident reports received by the MNPDP Records Division were accurately entered into the incident database (see Observation B).
- No effective procedures to ensure that all incidents recorded in the incident database that should be reported to the Tennessee Bureau of Investigation, were actually included in the export transmission file (See Observation G).

#### *5. Did incident report narratives support the crime classification assigned?*

Generally yes. The audit procedures found only 8 of 190 (4.2%) and 19 of 378 (5.0%) incident reports (4.8% overall rate) where the offense code on the report did not conform to the required criteria when using the report narratives as a guide.

6. *Were crime incident report status codes assigned in accordance with Tennessee Incident Based Reporting System guidelines?*

Generally yes. The audit test review of 565 sample incident reports determined that 40 of 565 (7%) had not met the required criteria (see Observation F).

7. *Were suspects actually arrested for crimes cleared by arrest?*

Yes. The Metro Nashville Office of Internal Audit was able to verify that arrests were actually made for incidents with a status of cleared by arrest. A review of 142 incidents with a status of "cleared by arrest" was sampled to determine if the arrests had actually been made. No exceptions were found.

8. *Did MNPDP personnel receive sufficient training on Tennessee Incident Based Reporting System crime classification reporting requirements?*

Generally yes. The Metro Nashville Office of Internal Audit found, through benchmarking, that the number of hours spent training police recruits on case law and report writing at the MNPDP Training Academy was comparable to peer agencies at 100 hours and 10 to 12 hours, respectively. A review of a sample of law exams, from training sessions conducted from January 1, 2007, to December 31, 2009, revealed, in every instance, that exams were graded accurately. The Metro Nashville Office of Internal Audit did find however that some personnel felt additional training would be helpful in ensuring the accuracy of crime classification (see Observation D).

9. *Identify and describe the differences between COMPSTAT crime reports, Tennessee Incident Based Reporting System, and Federal Bureau of Investigation Uniform Crime Reporting System.*

Appendix A, page 36, demonstrates MNPDP COMPSTAT crime counts were greater than Tennessee Incident Based Reporting System equivalent aggregate major crime counts and the Federal Bureau of Investigation Uniform Crime Reports aggregate major crime counts. This was observed for calendar years 2006, 2007, 2008, and 2009.

During the test period January 1, 2007, through December 31, 2009, a higher number of reported crime rates were resident in the MNPDP COMPSTAT database than in the Tennessee Incident Based Reporting System and the Federal Bureau of Investigation Uniform Crime Reports due to the following computer processing issues:

- Processing inconsistencies resulted in 9,710 valid Tennessee Incident Based Reporting System Part A crime offenses in the MNPDP Incident Data Entry database not being processed and included in the crime counts for the Tennessee Incident Based Reporting System. All of these offenses were included in MNPDP COMPSTAT reports.
- MNPDP COMPSTAT reports included 1,196 incident records that had not completed approval and business rules validation in the MNPDP Incident Data Entry database. Incident records must be approved and pass

validation business rules to be exported and included in the Tennessee Incident Based Reporting System.

- MNPDP crime data used for internal decision making (including Council, Mayoral, MNPDP annual and COMPSTAT Reports) use the date an incident is reported versus the date the incident occurred, which is utilized by the Tennessee Incident Based Reporting System. The use of different dates resulted in Part A annual crime count differences between MNPDP COMPSTAT and the Tennessee Incident Based Reporting System of 520 offenses and 431 offenses, for 2007 and 2008 respectively.
- MNPDP COMPSTAT reports include crime counts for other public safety agencies other than MNPDP such as the City of Berry Hill, Vanderbilt Police Department, etc. Normally, only MNPDP incident reports are exported using the MNPDP agency code to the Tennessee Incident Based Reporting System. MNPDP COMPSTAT reports included 2,184 Part A offenses attributed to agencies other than MNPDP.
- Inconsistent processing of the MNPDP Information Technology Division interface program for change records resulted in the Tennessee Incident Based Reporting System containing 197 offenses attributed to the MNPDP agency code that actually belonged to other local public safety agencies. MNPDP COMPSTAT reports included these offenses. However, these offenses should not be included in the Tennessee Incident Based Reporting System crime counts.
- Inconsistent processing of the MNPDP Information Technology Division interface program for change records resulted in the Tennessee Incident Based Reporting System containing 210 records which contained an “unfounded” incident status code. These records are not counted in the MNPDP COMPSTAT reports and should not be included in the Tennessee Incident Based Reporting System crime counts.
- The Federal Bureau of Investigation Uniform Crime Reports may also reject incidents based on validation tests performed on data received from the Tennessee Bureau of Investigation.

All of these issues impact the reported crime counts released to the public and help explain the differences between the three different systems (see Observation G).

*10. Is the MNPDP crime statistics reporting methodology comparable to other Tennessee and national peer agencies?*

Yes. The Metro Nashville Office of Internal Audit conducted a benchmark survey of crime reporting practices at several peer agencies. We made contact with two in-state Memphis and Knoxville, and two out-of-state jurisdictions of comparable population size Charlotte, North Carolina and Seattle, Washington. We found that the crime reporting methodology employed by the Metro Nashville Police Department is, generally, comparable to peer agencies with processes geared toward complete and accurate reporting.

Key points to highlight from our Fall 2010 benchmarking include:

#### Nashville

- Tennessee Incident Based Reporting System used to classify offenses.
- Crimes statistics are reported to Tennessee Bureau of Investigation.
- Crime analysis method: COMPSTAT.
- Uniform Crime Reporting based figures used for internal department crime analysis.
- Reporting process is partially automated: Mobile data terminals are used for dispatch. Some mobile data terminals in patrol cars are equipped with fully-functioning Advance Records Management System (ARMS) access.
- Police trainees study 100 hours of Case Law and 10 to 12 hours of report writing at training academy.

#### Memphis

- Tennessee Incident Based Reporting System used to classify offenses.
- Crimes statistics are reported to Tennessee Bureau of Investigation.
- Crime analysis method: Blue C.R.U.S.H™ (Criminal Reduction Utilizing Statistical History).
- Reporting process is fully automated: personal data assistants are assigned to each patrol officer.
- Police trainees study 77 hours of criminal and constitutional law and six hours of training on Tennessee Incident Based Reporting System, including how to use personal data assistants, at training academy.

#### Knoxville

- Tennessee Incident Based Reporting System used to classify offenses.
- Crimes statistics are reported to Tennessee Bureau of Investigation.
- Crime analysis method: COMPSTAT.
- Reporting process is fully automated: Mobile data terminals are issued to all patrol officers. Mobile data terminals are used for dispatch and reporting.
- In addition to legal training, police trainees spend four hours on Tennessee Incident Based Reporting System classification training at the academy.

#### Charlotte-Mecklenburg

- North Carolina state legal code used to classify offenses. Automated reporting system translates legal code to Uniform Crime Reporting based on a battery of questions at time of entry.
- Crimes statistics are reported to North Carolina Bureau of Investigation.
- Crime analysis method: COMPSTAT.
- Reporting process is fully automated: Mobile data terminals are issued to all patrol officers. Mobile data terminals are used for dispatch and reporting.

- The State of North Carolina mandates 74 hours of legal training for police trainees, 12 of which must focus exclusively on report writing.

### Seattle

- Working to become fully National Incident Based Reporting System compliant by January 1, 2012.
- Washington state legal code is used to classify offenses on incident reports. Legal classifications are translated to Uniform Crime Reports by records department.
- Monthly crime statistics analysis meetings conducted.
- Reporting process is fully automated: Mobile data terminals are issued to all patrol officers and also used for dispatch and reporting.

Our comparison of crime reporting methodologies and processes across jurisdictions yielded the following conclusions:

- Nashville lags behind peers in leveraging technology.  
In terms of leveraging technology, Nashville is in its first year of using the Advance Records Management System which will automate incident report submittal. The peers benchmarked are fully automated and have been for a matter of years (Seattle since 2008, Charlotte since 1998, etc.)
- Edit checks built into incident reporting systems help prevent classification errors.  
Self-checks built into incident report entry systems are an effective way to prevent misclassification. For example, if an officer is reporting a simple assault, the in-house developed system used by the Charlotte-Mecklenburg Police Department, runs through a battery of questions including, "Did the suspect have a gun?" If the officer indicates that the suspect had a gun, the system will recognize that the offense should be classified as aggravated assault.

The intuitive question and answer reporting system utilized by the Charlotte-Mecklenburg Police Department facilitates accurate reporting by discouraging classification mistakes on the front-end when a report is initially filed rather than relying on supervisory review after the fact.

The Metro Nashville Office of Internal Audit noted that a similar capability is built into the newly implemented Automated Records Management System. The MNPDP Advance Records Management System edit checks will help facilitate accurate reporting at the MNPDP.

- Updating incident reporting systems on a continual basis helps address errors.  
At Charlotte-Mecklenburg Police Department, a meeting is conducted every other week to discuss improvements to the system that will promote accuracy in reporting, both in initial crime classification and reporting to the North Carolina State Bureau of Investigation. At the meeting, cases are reviewed and suggested edits to the system are discussed. A five person panel reviews the suggested edits and either approves or rejects

corresponding changes to the system. The computer technology services division of the police department implements the changes to the system upon approval.

## OBSERVATIONS AND RECOMMENDATIONS

### ***A – Lack of a Process Owner***

The crime statistical reporting process lacks a designated process owner and/or champion. Multiple parties are responsible for various parts of the crime statistics reporting process that are located across several divisions of the MNPd. The Emergency Communications Center receives all incoming request for service calls and forwards them to the MNPd for action. Prior to the implementation of the Advanced Records Management System, the MNPd Records Division inputs crime incident reports into the database. Now, incident reports are entered by officers in the field and the MNPd Records Division using the newly implemented Advanced Records Management System. The MNPd Information Technology Division processes, stores and forwards database information to the Tennessee Bureau of Investigation and other users. The MNPd Crime Analysis Unit utilizes the incident report data to populate the MNPd COMPSTAT system and also provide crime information reports to internal and external users. The MNPd Training Academy trains police recruits on report writing and basic crime statistics reporting elements. Police Officers, primarily from the Field Operations Bureau, write the crime incident reports. No single individual or division has authority and knowledge of the process as a whole and how each piece affects the other parts of the puzzle. No single individual or division is responsible for all of the goals and objectives of the program.

Oversight and direction of the present process could be more effectively performed by having someone with sufficient knowledge, ability and authority to effect changes across the entire process. The “process owner” would be responsible for assessing risks to the process, determining training needs; ensuring information is accurate, protected, complete, timely and available to meet user needs. Additionally, the process owner should be aware of and make examination of external crime statistic reports that are based on incident reports from Metro Nashville, such as the annual reports from the Tennessee Bureau of Investigation and reports from the Federal Bureau of Investigation. A process owner who is familiar with all parts of the process would be more likely to spot trends in other data that diverges from MNPd trends and troubleshoot the cause or justification of the divergence.

#### *Criteria:*

*The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Management review of reports is critical in ensuring a strong internal control framework and is included in the definition of control activities and monitoring.

#### *Risk:*

- Changes will be made to one part of the crime statistics reporting process that will negatively affect another part of the process.
- The ability to quickly identify and respond to various crime statistics reporting issues will not be maximized.



*Recommendations:*

MNPD management should:

1. Assign one specific individual responsibility for the entire crime statistical reporting process. The individual should be of sufficient rank and authority within the department to be able to execute, implement, and make changes to processes and controls necessary to realize reporting goals and objectives.
2. Support the process owner by establishing a process improvement team. This team should be made up of various stakeholders in the crime statistics reporting process (i.e. representatives from Information Technology Services Division, Records Division, the Precincts, Police Officers, Crime Analysis Unit, etc.). The team should meet periodically to identify and discuss strengths, weaknesses, objectives, controls, risks, and potential enhancements.
3. Develop detailed procedures related to the entire crime statistics reporting process to augment the MNPD report writing guide. These procedures should be periodically reviewed and updated. These procedures should be made readily available to all MNPD personnel.

## ***B – Inability to Ensure Completeness of Crime Incident Database***

The MNPD lacked controls and procedures to provide assurance that all crime incident reports issued by police officers were actually entered into the incident database and forwarded to police archives for storage.

The vast majority of request for police service come from the calls made to the Emergency Communications Center. These calls are logged into the Computer Aided Dispatch System and are assigned a sequent tracking number. Police officers are then dispatched out to the scene by the Emergency Communications Center. The incident number issued in the Computer Aided Dispatch system is again used as the incident number for the crime incident report. However, not all requests for service to Emergency Communications Center translate to the need for a crime incident report. The Emergency Communication Center uses over 300,000 Computer Aided Dispatch tracking numbers per year. However, only approximately 105,000 *crime incident reports* are created each year by the MNPD. Other MNPD report types are also created from the dispatched call tracking numbers such as missing person reports, traffic reports, etc. Additionally, some dispatched numbers may not be used for any report. Thus, the vast majority of Emergency Communications Center tracking numbers have no corresponding MNPD crime incident report. The result is that it is not currently feasible to perform completeness reconciliation between the two sets (Computer Aided Dispatch numbers and MNPD incident report numbers) and determine if all MNPD crime incident reports created from a Computer Aided Dispatch number are actually resident in the MNPD incident database and the actual hardcopy report is resident in police archives.

Facilitating this problem is the fact that the MNPB Records Divisions lacked controls and procedure to ensure that all incident reports received from the various precincts and police officers were actually entered into the incident database. A reconciliation between what is received by the MNPB Records Division and what is actually entered into the incident database was not being performed. Currently, the number of incident reports received is being tallied and signed for by MNPB records personnel. However, MNPB management did not have a methodical system in place to ensure that all incident reports had been properly and correctly entered into the database.

The Metro Nashville Office of Internal Audit's conclusion from the analysis above is controls related to the completeness of the incident report database require enhancement/modification.

*Criteria:*

- *The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Management review of internal reports is critical in ensuring a strong internal control framework. Such a review enhances the **control activities and monitoring** component of a strong internal controls framework.
- *TIBRS Data Collection: An Instructional Manual for the Implementation of Tennessee Incident Based Reporting System*, Tennessee Bureau of Investigation, Crime Statistics Unit, 9<sup>th</sup> Edition, March 2009.
- *Uniform Crime Reporting Handbook*, U.S. Department of Justice, Federal Bureau of Investigation, Revised 2004.

*Risk:*

The result of the inability to ensure that every incident report written has been entered into the database and has been forwarded to archives is that it is impossible to verify that crime has been accurately and completely stated in crime reports.

*Recommendations:*

MNPB management should:

- 1) Work with the Emergency Communications Center to develop a methodology for determining precisely which Computer Aided Dispatch tracking numbers result in a crime incident report and which ones do not.
- 2) Establish a control mechanism whereby all crime incident reports sent to police archives for storage are first confirmed to be resident and accurate in the crime incident database.

## **C – Crime Incident Report Narrative Enhancement**

Crime incident report narratives require enhancement. Each incident report contains a narrative section used to describe the events that occurred. The quality of this narrative is imperative in being able to accurately classify a

crime according to standards or to later review the incident report for proper classification. In many cases, this narrative will be the only remaining source of information to assist MNPB management and other applicable parties in ascertaining that a crime was properly classified. The Metro Nashville Office of Internal Audit randomly selected a sample of 568 incident reports for review by outside contractors. Overall, general comments from two different subject matter experts indicated that the quality of the narratives should be enhanced. Referring to specific incident reports, in 27 of the 565 incident reports reviewed, it was noted by the subject matter experts that the information in the narrative section did not result in the proper classification of a crime. Additionally, in 9 of 565 incident reports the subject matter experts state that the narrative is insufficient to base a classification on.

It is very important to note that, in any job in any industry, the ability to write is a very subjective skill set and the proficiency of this skill will vary from person to person. Police officers are charged with a multitude of wide ranging responsibilities that are critical to the safety, well-being, and quality of life of the citizens of their respective jurisdictions. Although writing may not be the most important attribute for a police officer, it is still an important task. Experience and training most always result in increased ability.

During the course of this engagement, the Metro Nashville Office of Internal Audit compared processes used in crime statistical reporting at the MNPB to other comparable jurisdictions and noted that some jurisdictions leveraged technology to assist with the quality of the incident report narratives. For example, in one jurisdiction, police officers entered incident reports directly into the software system used to track crime information. The software prompted the officer by asking specific questions that were used to properly classify a crime. In another jurisdiction, standard templates to provide specific elements that should be included in order to ensure the final narratives are comprehensive and result in proper classification of the crimes are used. Both jurisdictions felt the additional tools were valuable aids.

Contrastingly, the MNPB incident reports reviewed in this audit provided the officers only blank narrative report lines. Consequently, the MNPB incident reports may require a higher degree of writing skills and/or experience and training in order to obtain high quality reports.

*Criteria:*

- *TIBRS Data Collection: An Instructional Manual for the Implementation of Tennessee Incident Based Reporting System*, Tennessee Bureau of Investigation, Crime Statistics Unit, 9<sup>th</sup> Edition, March 2009.
- *Report Writing Manual*, Metropolitan Police Department Nashville and Davidson County, June 11, 2010, Section C, page 6.
- *Uniform Crime Reporting Handbook*, U.S. Department of Justice, Federal Bureau of Investigation, Revised 2004.

*Risk:*

- Poorly written or incomplete narratives increase the risk that crimes will be incorrectly classified.

- Additional or after-the-fact reviews by management, auditors or other third parties may be more difficult.

*Recommendations:*

MNPD management should:

- 1) Implement procedures to ensure that crime incident report narratives are specific, relevant and comprehensive. Consideration should be given to the review process, training, references, example bullets, standard operating procedures and internal controls.
- 2) Consider the use of software tools, templates or other items that would aid the crime incident report writing process. If possible, leverage the use of technology for an enhancement multiplier effect.

## ***D – Training Enhancement***

While resources devoted to the overall training of applicable MNPD personnel on the crime reporting process is comparable to other jurisdictions, additional training would provide greater assurance that crime reporting goals would be met.

Acquiring a complete understanding of the crime statistics reporting process, the various reporting methodologies used, the needs of various user groups, the impact of those needs on the actual numbers reported, and how to accurately and properly classify a given crime can be challenging. Officers, supervisors, and information technology staff must be familiar with Tennessee Code Annotated, Metropolitan Nashville Code of Laws, Tennessee Incident Based Reporting System, and Uniform Crime Reports, all of which may have various requirements and nuances on how to classify and report a crime. Consequently, it is critical that involved parties have a solid understanding of these main areas. To that end, the MNPD has implemented a series of training mandates described in more detail earlier in the report.

In interviews, police officers stated again and again that more training should be conducted on the crime statistics and report writing process. Many police officers stated that their only official training was from their initial training at the police academy. Training after that time was informal and from their assigned field training officer. No refresher or advanced course had been provided and none interviewed stated they had attended the Tennessee Incident Based Reporting System training provided by the Tennessee Bureau of Investigation, although the Tennessee Bureau of Investigation stated in July 2010 that scheduled classes were full due to a large increase in the number of MNPD applicants.

*Criteria:*

- *The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards and criteria by which organizations can assess their internal control systems.

- *TIBRS Data Collection: An Instructional Manual for the Implementation of Tennessee Incident Based Reporting System*, Tennessee Bureau of Investigation, Crime Statistics Unit, 9<sup>th</sup> Edition, March 2009.
- *Report Writing Manual*, Metropolitan Police Department Nashville and Davidson County, June 11, 2010.
- *Uniform Crime Reporting Handbook*, U.S. Department of Justice, Federal Bureau of Investigation, Revised 2004.

*Risk:*

- Inadequate training enhances the risk of errors and that reporting goals and objectives will not be met.
- Non-standard and informal practices that should not be undertaken will creep into the process.

*Recommendations:*

MNPD management should:

- 1) Utilize training opportunities offered by the Tennessee Bureau of Investigation on crime classification and crime reporting. Training should occur on a periodic, recurring basis to ensure that applicable staff receives training on the most up to date trends, methodologies, issues, and classifications related to crime statistical reporting.
- 2) Ensure lessons learned from incident report supervisory reviews are included in the feedback loop of learning and experience. Communicating any narrative or classification error deficiency to police personnel in a constructive manner enhances the learning process and provides a valuable mentoring tool in the professional mentoring of MNPD staff.

## ***E – COMPSTAT as a Management Tool Only***

COMPSTAT should be used as a MNPD management tool and not used to report crime statistics to external parties. Since 2000, the MNPD has been required to participate in Tennessee Incident Based Reporting System as per state law. Contrastingly, MNPD has chosen to utilize the Federal Bureau of Investigation, Uniform Crime Report methodology in reporting its own crime information to the public, Metropolitan Council, the Mayor's Office and others. Interviews with MNPD leaderships suggest that for historical reference reasons they continued to roll up the incident based numbers into Federal Bureau of Investigation, Uniform Crime Report type data rather than to make a complete switch over to incident based data. Again, the reason provided was so that in the initial years, there would be some point of reference to the numbers.

However, the Metro Nashville Office of Internal Audit noted in information from the Justice Resource and Statistics Association (funded by the U.S.

Bureau of Justice Statistics) that the national trend has been to move away from Uniform Crime Reporting to incident based reporting, which brings more detail to the data. The MNPB Crime Analysis Unit obtains a copy of the Nashville incident report data and summarizes the data to Uniform Crime Report type information for use with COMPSTAT. The Crime Analysis Unit then produces reports that are reported to the public and other Metropolitan governmental entities. The Tennessee Bureau of Investigation produces Tennessee Incident Based Reporting System reports once a year that have Nashville and surrounding entities specifically categorized. The Federal Bureau of Investigation also produces yearly reports that have Nashville and surrounding entities specifically categorized. Both the Tennessee Bureau of Investigation and the Federal Bureau of Investigation periodically audit the incident reports they receive and verify the accuracy through research at the originating location.

Rather than rely on the incident based data that it already collects, the MNPB has continued to utilize Uniform Crime Report type data in order to be able to compare crime statistical numbers from prior years. However, the crime statistics reporting process would be enhanced by utilizing incident based statistics for the following reasons:

- 1) Incident based data is collected by the MNPB as mandated by Tennessee law. The incident data is already passed on to the Tennessee Bureau of Investigation who produces yearly incident based reports. The Federal Bureau of Investigation also utilizes the same data and produces yearly incident based and Uniform Crime Report reports. Both the Tennessee Bureau of Investigation and Federal Bureau of Investigation conduct audits of the data that they receive and have various controls over their reporting process. The MNPB can obtain, utilize and provide Tennessee Incident Based Reporting System and Federal Bureau of Investigation Uniform Crime Report<sup>8</sup> reports without effort or cost while utilizing its already collected incident based data for its COMPSTAT process and internal needs. The MNPB process to assemble data from incident based to Uniform Crime Report type data is performed in house by the MNPB. The Crime Analysis Unit performs frequent checks and audits of the data it receives in an attempt to ensure its accuracy. However, the data reports output by them to other parties is un-audited by anyone else.
- 2) Incident based reporting provides a more accurate and detailed view of crime related information. The Uniform Crime Report methodology may exclude certain crimes from being reported due to the hierarchy rule and the Uniform Crime Report uses a more restrictive process for classifying crimes. Incidents that would be reported as a crime under incident based reporting may be excluded from Uniform Crime Report reporting. For example, forcible sodomy, male rape and same-sex rape are not classified or reported as a rape under Uniform Crime Report standards. However, most people do view these crimes as rapes and they are

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<sup>8</sup> Tennessee Incident Based Reporting System annual reports are generally available in May and Federal Bureau of Investigation reports in October for the previous year. The MNPB website shows its internal annual Uniform Crime Report type reports were generally posted between September and December.

defined as such under the incident based methodology. Crime rates in this category are very likely higher than those reported under Uniform Crime Report standards.

- 3) Incident based reporting facilitates more effective utilization of crime statistics reporting as a management tool. Since incident based reporting is more detailed and accurate, the MNPd's ability to effectively ascertain what crimes are being committed, where and with what frequency they are being committed, and how to allocate resources is enhanced through incident based data.
- 4) The Uniform Crime Report methodology focuses primarily on Part I, major crime categories; however, there may be other crimes that users of crime statistical reports may be interested in that are not included. The Uniform Crime Report program began in 1930. Seven "Part 1" (serious) crimes were used with arson being added as the eighth offense category in 1979. Incident based reporting was developed in the 1980s as police agencies and others saw the need for more detailed data.
- 5) If the primary reason that MNPd initially decided to continue to utilize Uniform Crime Report type data was for historical reference reasons, they now have ten years of incident based data collected with which to compare current trends.
- 6) The State of Tennessee has mandated that the data it receives is incident based data. Thus, Tennessee has 575 agencies that submit incident based data. According to the Justice Resource and Statistics Association, only five states in the United States have no plans to implement incident based reporting.

Simple assault, drug arrest, prostitution, and others are not Part I crimes but they do affect the quality of life in a given area. Since the general public, as well as many government officials, do not have a thorough understanding of crime statistical reporting, presenting Uniform Crime Report information may provide an incomplete picture and lead to conclusions or decisions that may have been different, had more detailed information been presented.

*Criteria:*

- *The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Management review of internal reports is critical in ensuring a strong internal control framework. Such a review enhances the control activities and monitoring component of a strong internal controls framework.
- *The Code of the Metropolitan Government of Nashville and Davidson County, Code of Ordinances, Title 2 – Administration, Division I, Council, Officers and Departments, Chapter 2.44 – Police Department, Section 115 – Crime reports to be submitted to the metropolitan council.*

*Risk:*

- Decision makers will have less information to rely on.

- The MNPDP processing of incident data into Uniform Crime Report type data will not be performed accurately (the process is unaudited by any outside entity).

*Recommendations:*

MNPDP management should:

- 1) Discontinue providing COMPSTAT based yearly crime reports to the Metropolitan Council and other users but should rely on already produced Tennessee Incident Based Reporting System, National Incident Based Reporting System and Uniform Crime Reports from the Tennessee Bureau of Investigation and Federal Bureau of Investigation respectively. Note: Providing location based, segmented or particular incident based data to external users for specific timely needs could still be performed without conflict.
- 2) Consider discontinuing its use of Uniform Crime Report type data and utilize incident based data for its COMPSTAT process.

## ***F - Status of Crime Incidents***

Crime incident status codes did not always conform to classification criteria from the Tennessee Bureau of Investigation *Tennessee Incident Based Reporting System Manual* and the *MNPDP Report Writing Guide*. While the crime incident offense code refers to the specific crime (murder, rape etc.), the incident status code refers to the current disposition of the crime (open, cleared by exception, cleared by arrest, unfounded, etc.)

Police Records and Information Management Group conducted the analysis related to the 565 audit sample incident reports described below in this observation. The primary purpose of this test was to ascertain if the incident status codes on the MNPDP incident reports were accurately stated, in accordance with applicable Tennessee Bureau of Investigation and MNPDP report writing guidelines. A copy of each report selected in the sample was submitted to the subject matter expert for review after the offense code and status code had been redacted (in order to ensure the contractor was reviewing the narratives without bias). For this particular test the subject matter expert was asked to review each incident report in its entirety and respective supporting documentation to determine if the incident status should be “unfounded” or “cleared by exception” using Tennessee Incident Based Reporting System guidelines.

In addition to the subject matter expert’s review, the Metro Nashville Office of Internal Audit also reviewed each incident report and vouched reports with an “arrest” incident status code to documentation supporting that an arrest was actually made.



A summary of the status code testing results is described in Exhibit C below.

### **Exhibit C - Status Code Testing Results**

<b>Status Codes Assigned</b>	<b>Number Assigned</b>	<b>Number of Exceptions</b>	<b>Percentage of Exceptions</b>
Cleared by Arrest	142	0	0.0
Cleared by Exception	89	31	5.5
Unfounded	44	9	1.6
All Others (Open, etc.)	290	0 <sup>9</sup>	0.0
Total	565	40	7.1

*Source: Metro Nashville Office of Internal Audit compiled test data*

#### *Criteria:*

- *TIBRS Data Collection: An Instructional Manual for the Implementation of Tennessee Incident Based Reporting System*, Tennessee Bureau of Investigation, Crime Statistics Unit, 9<sup>th</sup> Edition, March 2009.
- *Report Writing Manual*, Metropolitan Police Department Nashville and Davidson County, June 11, 2010.
- *Uniform Crime Reporting Handbook*, U.S. Department of Justice, Federal Bureau of Investigation, Revised 2004.

#### *Risk:*

- Users of incident reports will rely on incorrect data.
- Decision makers will have less information to rely on.

#### *Recommendations:*

MNPD management should consider enhancing its supervisory reviews regarding the assignment of an incident status.

## **G – Processing Errors Have Resulted In Crime Count Reporting Inaccuracies**

Criminal incident reports that should be reported to the Tennessee Bureau of Investigation's Tennessee Incident Based Reporting System were not consistently processed by MNPD's computer applications used to identify reportable incidents.

The Metro Nashville Office of Internal Audit reconciliation of Tennessee Incident Based Reporting System reported incidents with the MNPD's Incident Data Entry System revealed the following issues summarized in Exhibit D below.

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<sup>9</sup> The status of Open was not tested since in most cases it simply means "not cleared."

### Exhibit D - Summary of MNPD Computer Processing Errors

Computer Processing Error Issue	Number of Exceptions	Potential TIBRS Part A Crime Count Impact
1) Incident report completed in MNPD incident database and not in Tennessee Incident Based Reporting System.	9,710	Under Reported
2) Incident report completed in MNPD Incident Database but not validated or approved	1,196	Under Reported
3) Incident report in MNPD document management system and not completely entered in MNPD Incident Database.	364	Potential Under Reported
4) Incident report with blank date in MNPD incident database.	18	Potential Under Reported
5) Incident in Tennessee Incident Based Reporting System but failed validation in MNPD Incident Database.	300	Potential Under or Over Reported
6) Non-MNPD agency code incident report in Tennessee Incident Based Reporting System as MNPD agency code.	197	Over Reported
7) Incident in Tennessee Incident Based Reporting System but "Unfounded" in MNPD Incident Database.	210	Over Reported

*Source: Metro Nashville Office of Internal Audit compiled data from MNPD Incident database and Tennessee Incident Based Report System download.*

#### Potential Incidents Not Recorded in the Tennessee Incident Based Reporting System

1. A total of 9,710 valid MNPD incident records with Tennessee Incident Based Reporting System Part A offenses were not found recorded in the Tennessee Incident Based Reporting System. The corresponding Metro Nashville Police Department Incident Data Entry System crime incident records had been validated and approved; and, the incident status was other than "unfounded".
2. A total of 1,196 MNPD incident records with Tennessee Incident Based Reporting System Part A offenses had not passed one or more MNPD business rules; thus, they were not forwarded for recording in the Tennessee Incident Based Reporting System. All of these records had an incident status other than "unfounded". Note: The fact that an incident record did not pass all required business rules for processing does not mean that no crime incident occurred, only that at least one element of the reporting process was not correctly performed.
3. A total of 364 incident reports, that had been scanned into the MNPD Questys document management system, were not completely entered in the MNDP Incident Data Entry System and were not available for exporting to the Tennessee Incident Based Reporting System. These incidents may or may not have been reportable incidents.
4. The incident date fields (Incident Date and Incident Date Occurred) were both blank for 18 complaint master records with incident numbers prefixed with "2007", "2008", or "2009". Four of the complaint master records with blank incident dates were mapped to Tennessee Incident Based Reporting System Part A offenses. Incident records with blank

date fields will not be sent to the Tennessee Incident Based Reporting System.

A periodic aging mechanism would have aided the identification and ability to correct incident reports that had not been validated. These un-validated incident reports could have been further classified by age/days since initial entry and may have prevented these incident reports from remaining in a “parked” status indefinitely without anyone making the changes to ensure they were reported, updated or deleted.

These four sets represent 11,627 potential reportable offenses which were not included in either the Tennessee Incident Based Reporting System or the Federal Bureau of Investigation official crime counts for the three year audit period.

#### Changes to Part A Incident Records Were Not Processed

5. Similarly, 300 Tennessee Incident Based Reporting System offense records were observed in which the MNPDP’s Incident Data Entry System indicated the incident had not passed business rule validations. This was indicative of changes to existing incidents not being sent to the Tennessee Incident Based Reporting System.
6. A total of 197 Tennessee Incident Based Reporting System offense records were recorded as MNPDP crimes although they actually belong to other Metro Nashville public safety agencies, such as the City of Berry Hill, the Vanderbilt University Police, the City of Lakewood, or Metro Nashville Parks Police.
7. A total of 210 Tennessee Incident Based Reporting System offense records from the MNPDP’s Incident Data Entry System indicated an incident status of “unfounded”. “Unfounded” incidents should not be included in the official crime counts and should not be forwarded to the Tennessee Bureau of Investigation for processing. This was another indication that changes to existing incident reports were not consistently sent to the Tennessee Incident Based Reporting System.

#### Other Data Integrity Concerns

- Audit test revealed the MNPDP Incident Data Entry System offense code did not agree with the incident report source document for 9 (1.6%) of 565 incident reports reviewed.
- The MNPDP Incident Data Entry System contained 20,786 partial incident records where data entry of key information was started but not completed. Each of these incidents did not have a corresponding required victim record. These partial incident records were the results of data entry keying errors or incident reports received telephonically, the caller disconnected prior to the call taker completing all of the required fields for an incident report. MNPDP Records Division deletion procedures were not consistently performed during the audit scope resulting in numerous

incomplete records, created in error, remaining in the MNPDP Incident Database.

*Criteria:*

IT Governance Institute's Control Objectives for Information Technology (COBIT 4.1) – AI2.3 Application Control and Auditability states: "Implement business controls, where appropriate, into automated application controls such that processing is accurate, complete, timely, authorized and auditable."

*Risk:*

Inaccurate reported crime counts can jeopardize the public's perception of the ability of the MNPDP to provide quality public safety services. Additionally, management decisions on how to allocate scarce public safety resources could be based on imprecise crime information.

*Recommendations:*

MNPDP management should:

- 1) Review application controls designed in the newly implemented Advanced Records Management System to ensure all incident reports are fully processed to final disposition or document why an incident report cannot be fully processed.
- 2) Periodically download the incident records accepted in the Tennessee Incident Based Reporting System and compare these records to the Advanced Records Management System incident records to verify all business rules are consistently working as management intended.
- 3) Develop computer query scripts to ensure business rules are working as intended for such tasks as:
  - Ensuring all Advanced Records Management System incident records are validated, approved, and included in the Tennessee Incident Based Reporting System crime count or flagged as processing exceptions.
  - Exploring Advanced Records Management System incident related date fields for blanks or keying of unreasonable date ranges.
  - Comparing incident report agency attributes to ensure only MNPDP (Agency 1) are counted in the Tennessee Incident Based Reporting System crime counts.
  - Comparing reported Tennessee Incident Based Reporting System incidents with Advanced Records Management System key processing fields to ensure changes are processed as intended. This should include similar Incident Data Entry System fields such as the "Incident Status", "Validation Complete Date" and "Comp Approved Status" fields.
- 4) Ensure the ability for parties to modify/delete information in the Advanced Records Management System is restricted.

- 5) Ensure tracking and review of all modifications and deletions in the Advanced Records Management System.
- 6) Perform periodic aging analysis of all records not validated and/or approved in the incident database and timely delete or flag records created in error.
- 7) Develop a mechanism to ensure all incident report fields, particularly the offense codes, are entered into the Advanced Records Management System.

## **GENERAL AUDIT INFORMATION**

### **STATEMENT OF COMPLIANCE WITH GAGAS**

We conducted this audit from June 2010 to June 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

### **SCOPE AND METHODOLOGY**

The audit period focused primarily on the period January 1, 2007, through December 31, 2009.

The methodology employed throughout this audit was one of objectively reviewing various forms of documentation, including written policies and procedures, crime statistical reporting information, various forms of data, and information pertaining to the crime statistical reporting process. Additionally, independent, outside subject matter experts were used to help conduct this audit.

### **CRITERIA**

In conducting this audit, the existing MNPB Crime Statistical Reporting processes were compared to recommended practices found in:

- TIBRS Data Collection Instruction Manual.
- Uniform Crime Reporting Handbook.
- MNPB Report Writing Manual.
- Prudent Business Practices.
- IT Governance Institute's Control Objectives for Information Technology.
- *The COSO Internal Control - Integrated Framework.*

### **STAFF ACKNOWLEDGEMENT**

Mark Swann, CPA (Texas), CIA, CISA, ACDA, Metropolitan Auditor  
Carlos Holt, CPA, CFF, CIA, CFE, CGAP, Audit Manager  
Bill Walker, CPA, In-Charge Auditor  
Roxanne Caruso, CIA, Auditor

## APPENDIX A. MNPD Crime Statistics 2006 to 2009

Point in Time	Sep - Oct	12/28/2009	12/17/2010	Spring	Fall	12/17/2010	12/17/2010	
<b>2006</b>								
	MNPD Annual RPT	MNPD COMPSTAT	MNPD ARMS	TIBRS Annual Rpt	UCR Annual Rpt	TIBRS OnLine	UCR OnLine	OnLine Difference
Murder and Non negligent Manslaughter (1A + 1C)	81	80	N/A	80	80	80	80	-
Forcible Rape (02)	333	328	N/A	321	320	341	320	21
Robbery (03)	2,521	2,530	N/A	2,440	2,425	2,440	2,425	15
Aggravated Assault (04)	5,911	5,979	N/A	5,765	5,740	5,766	5,740	26
Burglary (05)	6,596	6,603	N/A	6,404	6,370	6,404	6,370	34
Larceny Theft (06)	25,141	25,156	N/A	23,580	23,234	23,580	23,234	346
Motor Vehicle Theft (07)	3,083	3,083	N/A	2,945	3,021	3,090	3,021	69
Arson (09)	N/A	117	N/A	126	125	126	N/A	
	43,666	43,876	-	41,661	41,315	41,827	41,190	511
<b>2007</b>								
	MNPD	MNPD	MNPD	TIBRS	UCR	TIBRS	UCR	Difference
Murder and Non negligent Manslaughter (1A + 1C)	73	70	71	73	73	73	73	-
Forcible Rape (02)	339	332	337	298	290	298	290	8
Robbery (03)	2,603	2,606	2,612	2,542	2,516	2,542	2,516	26
Aggravated Assault (04)	5,839	5,925	5,947	5,642	5,634	5,643	5,634	9
Burglary (05)	6,243	6,248	6,225	6,081	6,111	6,081	6,111	(30)
Larceny Theft (06)	24,826	24,833	24,554	23,031	22,729	23,031	22,729	302
Motor Vehicle Theft (07)	2,817	2,813	2,806	2,559	2,626	2,664	2,626	38
Arson (09)	N/A	101	N/A	110	110	110	N/A	
	42,740	42,928	42,552	40,336	40,089	40,442	39,979	353

(UCR Code in COMPSTAT)



Point in Time	Sep - Oct	12/28/2009	12/27/2010	Spring	Fall	12/27/2010	12/27/2010	
	<b>2008</b>							
	MNPD Annual RPT	MNPD COMPSTAT	MNPD ARMS	TIBRS Annual Rpt	UCR Annual Rpt	TIBRS OnLine	UCR OnLine	OnLine Difference
Murder and Non negligent Manslaughter (1A + 1C)	74	75	74	76	76	75	76	(1)
Forcible Rape (02)	317	313	315	308	301	298	291	7
Robbery (03)	2,378	2,378	2,398	2,394	2,384	2,387	2,377	10
Aggravated Assault (04)	5,621	5,678	5,718	5,679	5,643	5,656	5,621	35
Burglary (05)	6,243	6,245	6,270	6,234	6,326	6,220	6,312	(92)
Larceny Theft (06)	24,797	24,809	24,470	24,063	23,764	24,063	23,730	333
Motor Vehicle Theft (07)	2,324	2,193	2,291	2,221	2,257	2,289	2,233	56
Arson (09)	N/A	101	N/A	117	116	117	N/A	
	41,754	41,792	41,536	41,092	40,867	41,105	40,640	348
	<b>2009</b>							
	MNPD	MNPD	MNPD	TIBRS	UCR	TIBRS	UCR	Difference
Murder and Non negligent Manslaughter (1A + 1C)	N/A	N/A	79	77	77	79	77	2
Forcible Rape (02)	N/A	N/A	305	265	262	266	262	4
Robbery (03)	N/A	N/A	2,013	1,982	1,971	1,983	1,971	12
Aggravated Assault (04)	N/A	N/A	4,756	4,670	4,649	4,672	4,649	23
Burglary (05)	N/A	N/A	6,701	6,325	6,318	6,328	6,318	10
Larceny Theft (06)	N/A	N/A	21,788	21,297	21,113	21,297	21,113	184
Motor Vehicle Theft (07)	N/A	N/A	1,734	1,761	1,725	1,760	1,725	35
Arson (09)	N/A	N/A	N/A	70	70	71	N/A	
	-	-	37,376	36,447	36,185	36,456	36,115	270

(UCR Code in COMPSTAT)

**Sources:**

TIBRS 2006 Annual Report (page 346): [http://www.tbi.tn.gov/tn\\_crime\\_stats/publications/2006%20All%20Agencies%20Combined.pdf](http://www.tbi.tn.gov/tn_crime_stats/publications/2006%20All%20Agencies%20Combined.pdf)

TIBRS 2007 Annual Report (page 344): [http://www.tbi.tn.gov/tn\\_crime\\_stats/publications/Crime%20in%20TN%202007.pdf](http://www.tbi.tn.gov/tn_crime_stats/publications/Crime%20in%20TN%202007.pdf)

TIBRS 2008 Annual Report (page 331): [http://www.tbi.tn.gov/tn\\_crime\\_stats/publications/2008%20Crime%20in%20Tennessee.pdf](http://www.tbi.tn.gov/tn_crime_stats/publications/2008%20Crime%20in%20Tennessee.pdf)

TIBRS 2009 Annual Report (page 328): [http://www.tbi.tn.gov/tn\\_crime\\_stats/documents/CrimeinTN2009.pdf](http://www.tbi.tn.gov/tn_crime_stats/documents/CrimeinTN2009.pdf)

TIBRS 2009 Annual Report (page 328): [http://www.tbi.tn.gov/tn\\_crime\\_stats/documents/CrimeinTN2009.pdf](http://www.tbi.tn.gov/tn_crime_stats/documents/CrimeinTN2009.pdf)



**Sources Continued:**

UCR 2006 Annual Report (Table 8): [http://www2.fbi.gov/ucr/cius2006/data/table\\_08\\_tn.html](http://www2.fbi.gov/ucr/cius2006/data/table_08_tn.html)

UCR 2007 Annual Report (Table 8): [http://www2.fbi.gov/ucr/cius2007/data/table\\_08\\_tn.html](http://www2.fbi.gov/ucr/cius2007/data/table_08_tn.html)

UCR 2008 Annual Report (Table 8): [http://www2.fbi.gov/ucr/cius2008/data/table\\_08\\_tn.html](http://www2.fbi.gov/ucr/cius2008/data/table_08_tn.html)

UCR 2009 Annual Report (Table 8): [http://www2.fbi.gov/ucr/cius2009/data/table\\_08\\_tn.html](http://www2.fbi.gov/ucr/cius2009/data/table_08_tn.html)

UCR 2009 Annual Report (Table 8): [http://www2.fbi.gov/ucr/cius2009/data/table\\_08\\_tn.html](http://www2.fbi.gov/ucr/cius2009/data/table_08_tn.html)

MNPD 2008 Annual Report (page 42): <http://www.police.nashville.org/docs/reports/AnnualReport/2008.pdf>

MNPD 2007 Annual Report (page 48): <http://www.police.nashville.org/docs/reports/AnnualReport/2007.pdf>

MNPD 2006 Annual Report (page 46): <http://www.police.nashville.org/docs/reports/AnnualReport/2006.pdf>

MNPD ARMS: MNPD prepared and provided on December 7, 2010.

MNPD COMPSTAT: Auditor prepared using the legacy COMPSTAT database as of December 28, 2009.

## APPENDIX B. TIBRS OFFENSE REPORTING EXCEPTIONS

Description	2007	2008	2009	Total
09A - Murder and Nonnegligent Manslaughter	1	1	5	7
09B - Negligent Manslaughter	1			1
09C - Justifiable Homicide		1		1
100 - Kidnaping/Abduction	10	4		14
11A - Forcible Rape	16	15	4	35
11B - Forcible Sodomy	44	7	6	57
11C - Sexual Assault with an Object	17	5	5	27
11D - Forcible Fondling	85	21	13	119
120 - Robbery	89	18	41	148
13A - Aggravated Assault	216	55	67	338
13B - Simple Assault	557	134	124	815
13C - Intimidation	173	50	36	259
13D - Stalking	205	171	169	545
200 - Arson	2	3	3	8
210 - Extortion/Blackmail	5			5
220 - Burglary/Breaking & Entering	201	62	444	707
23A - Pocket-picking	3			3
23B - Purse-snatching	2	1		3
23C - Shoplifting	123	48	46	217
23D - Theft From Building	475	35	42	552
23E - From Coin-Operated Machine or Device	2		1	3
23F - Theft From Motor Vehicle	193	63	126	382
23G - Theft of Motor Vehicle Parts or Accessories	319	65	63	447
23H - All Other Larceny	546	111	147	804
240 - Motor Vehicle Theft	147	30	42	219
250 - Counterfeiting/Forgery	204	46	34	284
26A - False/Pretenses/Swindle/Confidence Game	415	66	48	529
26B - Credit Card/Automatic Teller Machine Fraud	201	36	30	267
26C - Impersonation	425	103	33	561
26E - Wire Fraud	18	1	2	21
270 - Embezzlement	163	24	20	207
280 - Stolen Property Offenses (Receiving, etc.)	3	2	1	6
290 - Destruction/Damage/Vandalism of Property	388	111	164	663
35A - Drug/Narcotic Violations	1,012	145	190	1,347
35B - Drug Equipment Violations	633	81	70	784
36A - Incest	1			1
36B - Statutory Rape	35	8	3	46
370 - Pornography/Obscene Material	14	1		15
39A - Betting/Wagering	5		1	6
39B - Operating/Promoting/Assisting Gambling	7		1	8
39C - Gambling Equipment Violations	20		3	23

## APPENDIX B. TIBRS OFFENSE REPORTING EXCEPTIONS (Continued)

Description	2007	2008	2009	Total
40A - Prostitution	212	4	49	265
510 - Bribery	2			2
520 - Weapon Law Violations	112	23	20	155
Total	7,302	1,551	2,053	10,906

## **APPENDIX C. MANAGEMENT RESPONSE**

- Management's Responses Starts on Next Page -



**METROPOLITAN POLICE DEPARTMENT**  
*of Nashville and Davidson County*

June 23, 2011

Karl F. Dean, Mayor

Steve Anderson  
Chief of Police

Mr. Mark Swann  
Metropolitan Auditor  
Office of Internal Audit  
222 3rd Avenue North, Suite 401  
Nashville, TN 37201

Re: Audit of Crime Statistical Reporting Process

Dear Mr. Swann:

I am in receipt of your agency's audit report and have reviewed the recommendations.

I am pleased to note that, as expected, the audit found no intentional manipulation of crime statistical data. I am also pleased that audit staff found our crime statistical reports to be reasonably stated and sufficient to satisfy state standards.

The diligent work of your audit staff in also identifying and further documenting data processing issues further supports the decisions made by this department and the city in the commitment to fully implementing our Automated Records Management System (ARMS). This comprehensive revision of the criminal justice record management process will continue to significantly reduce the opportunity for data processing errors to occur. In December 2009, the "old" systems that allowed for such errors become obsolete as ARMS went "live" across the government and has continued to be enhanced. I note that, as described in the audit, a computer script error was largely responsible for the transmission/transfer issue in the conveyance of 11,313 crime incident reports to the TBI (although those records were included in any reports utilized or published by the MNPd, and the transfer error had no effect on how these cases were investigated, reported or prosecuted). While those reports represent 3.6% of the 316,739 incident reports taken during the three year scope of the audit, this department is absolutely committed to the reduction of electronic and human error.

I commend the efforts of you and your team to understand the complex crime reporting processes created by the Federal Bureau of Investigation. Casual observers to these processes often fail to note the distinctions and differences in multiple systems. As noted, the MNPd collects and reports data in both the Uniform Crime Reporting (UCR) format and the National Incident-Based Reporting System (NIBRS). While NIBRS format data offers a significant benefit as an analytical tool, we believe that the usefulness of the UCR summary format in narrowing the focus of police resources in order to respond to crime patterns and trends in a timely manner, along with the ability to make historical data comparisons, makes the UCR format an appropriate crime statistic

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reporting tool for most purposes. It is important to note, however, that the reporting format (UCR vs. NIBRS) has no effect on how police respond to individual crimes, investigate those crimes, or conduct follow-up investigations. The reporting formats, and the differences within each, do provide different analytical tools to the crime analysis process. The MNPd has already updated its public website, <http://www.police.nashville.org/stats/index.asp>, to ensure that crime data in both formats are easily located by the public.

The recommendations contained within the audit have been reviewed and considered by my staff. While some were already in process with the deployment of ARMS, others will be part of an on-going strategy as we continue to improve our internal audit processes and train our employees.

The efforts of your entire team throughout the audit process are sincerely appreciated as we are always striving to improve our processes.

Sincerely,



Steve Anderson  
Chief of Police

## Audit of the MNPD Crime Statistical Reporting Process Management Response to Audit Recommendations

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion Date
<p><b>A. MNPD management should:</b></p> <ol style="list-style-type: none"> <li>1. Assign one specific individual responsibility for the entire crime statistical reporting process. The individual should be of sufficient rank and authority within the department to be able to execute, implement, and make changes to processes and controls necessary to realize reporting goals and objectives.</li> <li>2. Support the process owner by establishing a process improvement team. This team should be made up of various stakeholders in the crime statistics reporting process (i.e. representatives from Information Technology Services, Records, the Precincts, Police Officers, Crime Analysis Unit, etc.). The team should meet periodically to identify and discuss strengths, weaknesses, objectives, controls, risks, and potential enhancements.</li> <li>3. Develop detailed procedures related to the entire crime statistics reporting process to augment the MNPD report writing guide. These procedures should be periodically reviewed and updated. These procedures should be made readily available to all MNPD personnel.</li> </ol>	<p><b>Accept:</b></p> <ol style="list-style-type: none"> <li>1. The MNPD agrees with the observations and recommendations that note the importance of the crime statistical reporting process is such that it requires a single individual be responsible for ensuring the goals and objectives of the overall crime reporting process are met, that such person have sufficient authority to evaluate, review, and recommend changes to the process, and overall, to ensure the integrity of the crime statistic reporting processes. The MNPD has created a new unit dedicated to performing this function (Crime Data Quality Assurance Unit - CDQA), and assigned to the Chief of Police Bureau.</li> <li>2. The CDQA manager will work to establish a process improvement team, made up of persons with reporting knowledge as well as management knowledge of the reporting process.</li> <li>3. The CDQA unit will work with the process improvement team to establish and maintain procedures to review the crime reporting processes as a whole.</li> </ol>	<ol style="list-style-type: none"> <li>1. CDQA Manager Matthew Morley</li> <li>2. CDQA Manager Matthew Morley</li> <li>3. CDQA Manager Matthew Morley</li> </ol>	<ol style="list-style-type: none"> <li>1. Implemented on 3/16/2011</li> <li>2. Implemented on 3/16/2011, audit processes are under development</li> <li>3. Implemented on 3/16/2011, audit processes are under development</li> </ol>
<p><b>B. MNPD management should:</b></p> <ol style="list-style-type: none"> <li>1. Work with the Emergency Communications Center to develop a methodology for determining precisely which Computer Aided Dispatch tracking numbers result in a crime incident report and which ones do not.</li> <li>2. Establish a control mechanism whereby all crime incident reports sent to police archives for storage are first confirmed to be resident in the crime incident database.</li> </ol>	<p><b>Accept:</b></p> <ol style="list-style-type: none"> <li>1. Policies are in place for assigning the correct disposition code to a CFS to indicate a report was taken (not necessarily an incident report). The sources are very different, and while trends are comparable, the two sources will never match identically. However, additional training will be provided to ensure that employees are aware of the need for accurate disposition codes in call response.</li> <li>2. The CDQA Unit is working with Records Division to identify a process to verify data entry has been performed prior to archiving reports. Automated Field Reporting (AFR) has addressed the majority of reports, which are</li> </ol>	<ol style="list-style-type: none"> <li>1. CDQA Manager Matthew Morley &amp; ECC – Brian Long</li> <li>2. Records Division Capt. Kay Lokey</li> </ol>	<ol style="list-style-type: none"> <li>1. Audit processes are under development. CDQA Manager will coordinate with ECC Quality Control Team</li> <li>2. Implemented, audit processes are under evaluation</li> </ol>

## Audit of the MNPD Crime Statistical Reporting Process Management Response to Audit Recommendations

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion Date
	entered directly into ARMS. The CDQA Unit will also work with the Records Division to update the Records Division SOP.		
<p><b>C.</b> MNPD management should:</p> <ol style="list-style-type: none"> <li>1. Implement procedures to ensure that crime incident report narratives are specific, relevant and comprehensive. Consideration should be given to the review process, training, references, example bullets, standard operating procedures and internal controls.</li> <li>2. Consider the use of software tools, templates or other items that would aid the crime incident report writing process. If possible, leverage the use of technology for an enhancement multiplier effect.</li> </ol>	<p><b>Accept:</b></p> <ol style="list-style-type: none"> <li>1. The MNPD agrees, and our policy requires, that report narratives be well written, relevant and comprehensive. Consideration will be given to the review process, training, references, example bullets, standard operating procedures and internal controls.</li> <li>2. Consideration will be given by Police IT to employ the use of software tools/templates/etc that would aid in improving the quality of the crime report narratives.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training Division Capt. Harmon Hunsicker</li> <li>2. Police IT Division Richy Vaughn</li> </ol>	<ol style="list-style-type: none"> <li>1. Implemented. In-service training is an ongoing, living process which is constantly reviewed for improvements. Policy/Procedure manuals are under review.</li> <li>2. Implemented. Software revisions to allow this function are under review for development.</li> </ol>
<p><b>D.</b> MNPD management should:</p> <ol style="list-style-type: none"> <li>1. Utilize training opportunities offered by the Tennessee Bureau of Investigation on crime classification and crime reporting. Training should occur on a periodic, recurring basis to ensure that applicable staff receives training on the most up to date trends, methodologies, issues, and classifications related to Crime Statistical Reporting.</li> <li>2. Ensure lessons learned from incident report supervisory reviews are included in the feedback loop of learning and experience. Communicating any narrative or classification error deficiency to police personnel in a constructive manner enhances the learning process and provides a valuable mentoring tool in the professional mentoring of MNPD staff.</li> </ol>	<p><b>Accept:</b></p> <ol style="list-style-type: none"> <li>1. On July 27, 2010, supervisors from across the department attended refresher training at the TBI regarding classification and crime reporting. Such training facilitated an immediate review and update of the departmental report writing manual and serves as the foundation for additional internal training. Records personnel also participate in ongoing training conducted at the TBI regarding these issues. Appropriate personnel also attend the annual TIBRS Users Group Conference to receive recent updates.</li> <li>2. Periodic audits have been conducted and will continue to be conducted on crime classifications and incident status changes. Exceptions are passed to the originating officer through the Chain of Command, with opportunity to provide training when required.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training Division Capt. Harmon Hunsicker &amp; Records Division Capt. Kay Lokey</li> <li>2. SDD Capt. Mike Hagar &amp; CDQA Manager Matthew Morley</li> </ol>	<ol style="list-style-type: none"> <li>1. Implemented. Additional TIBRS training is an ongoing, living process which is constantly reviewed for improvements by MNPD and TBI. Policy/Procedure manuals are under review.</li> <li>2. Implemented. Incident status changes are a regular audit point of the CDQA Unit.</li> </ol>



## Audit of the MNPDP Crime Statistical Reporting Process Management Response to Audit Recommendations

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion Date
<p><b>E.</b> MNPDP management should:</p> <ol style="list-style-type: none"> <li>1. Discontinue providing COMPSTAT based yearly crime reports to the Metropolitan Council and other users but should rely on already produced Tennessee Incident Based Reporting System, National Incident Based Reporting System and Uniform Crime Reports from the Tennessee Bureau of Investigation and Federal Bureau of Investigation respectively. Note: Providing location based, segmented or particular incident based data to external users for specific timely needs could still be performed without conflict.</li> <li>2. Consider discontinuing its conversion of incident based data into Uniform Crime Report type data and utilize incident based data for its COMPSTAT process.</li> </ol>	<p><b>Partially Accept:</b></p> <ol style="list-style-type: none"> <li>1. Most often, such data requests are in response to requests from Council members and the nature of the requests necessarily dictates the data source or format. Access to public records is addressed in law and policy. The department will, and has, made UCR and TIBRs data available to any person or group. As we continue to do so, and recognizing that the general public may not understand the distinction, the data provided will include sufficient explanatory information to clearly delineate the difference.</li> <li>2. The MNPDP does not convert data, but will continue to analyze crime data using both UCR and TIBRS guidelines and definitions. While there are instances which require analyses at a greater detail (TIBRS Data), the standard will remain the FBI standard. Crime Reporting using UCR guidelines allow analysis of trends dating back to 1963, and also provide a barometer of crime in the county without providing too much detail.</li> </ol>	<ol style="list-style-type: none"> <li>1. Chief Of Police Steve Anderson &amp; SDD Capt. Mike Hagar &amp; Crime Analysis Manager Rich Kilburn.</li> <li>2. SDD Capt. Mike Hagar &amp; CDQA Manager Matthew Morley</li> </ol>	<p>1 &amp; 2: Implemented. The MNPDP provides public access to crime data in both formats. When special reports are requested, the reporting guideline utilized will continue to be footnoted on crime reports, and links for further details are provided on the MNPDP – Crime Analysis Website. Links are also provided to both the FBI's and TBI's website for crime statistics.</p>
<p><b>F.</b> MNPDP management should consider enhancing its supervisory reviews regarding the assignment of an incident status.</p>	<p><b>Accept:</b></p> <p>MNPDP management will place an emphasis on the review of incident status when the supervisor signs the report. In addition, monthly audits will be performed to review cases cleared by exception and unfounded. Exceptional findings will be sent back to the submitting officer through his/her chain of command for review.</p>	<p>1. CDQA Manager Matthew Morley &amp; SDD Capt. Mike Hagar</p>	<p>Ongoing, through process development, training and auditing.</p>
<p><b>G.</b> MNPDP management should:</p> <ol style="list-style-type: none"> <li>1. Review application controls designed in the newly implemented Advanced Records Management System to ensure all incident reports are fully processed to final disposition or document why an incident report cannot be fully processed.</li> </ol>	<p><b>Accept:</b></p> <ol style="list-style-type: none"> <li>1. This function is currently provided by TBI on every data transfer. On each transfer, items are rejected and returned to us for failures to meet business rules.</li> <li>2. This recommendation was set into place during the MNPDP's May 2011 data submission to TBI.</li> </ol>	<p>Policy IT Division – Richy Vaughn</p> <p>CDQUnit – Matthew Morley</p>	<p>Police IT will work with CDQ on an ongoing basis in order to insure that protocols recently put into place perform optimally</p>

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<p>2. Periodically download the incident records accepted in the Tennessee Incident Based Reporting System and compare these records to the Advanced Records Management System incident records to verify all business rules are consistently working as management intended.</p> <p>3. Develop computer query scripts to ensure business rules are working as intended for such tasks as:</p> <ul style="list-style-type: none"> <li>• Ensuring all Advanced Records Management System incident records are validated, approved, and included in the Tennessee Incident Based Reporting System crime count or flagged as processing exceptions.</li> <li>• Exploring Advanced Records Management System incident related date fields for blanks or keying of unreasonable date ranges.</li> <li>• Comparing incident report agency attributes to ensure only MNPB (Agency 1) are counted in the Tennessee Incident Based Reporting System crime counts.</li> <li>• Comparing reported Tennessee Incident Based Reporting System incidents with Advanced Records Management System key processing fields to ensure changes are processed as intended. This should include similar Incident Data Entry System fields such as the "Incident Status", "Validation Complete Date" and "Comp Approved Status" fields.</li> </ul> <p>4. Place limitations on the ability for parties to modify/delete information in the Advanced Records Management System.</p> <p>5. Implementing tracking and review of all modifications and deletions.</p> <p>6. Perform periodic aging analysis of all records not validated and/or approved in the incident database and timely delete or flag records created in error.</p>	<p>This procedure is now performed monthly. MNPB will continue to reconcile its data with TBI's data.</p> <p>3. <i>Query Scripts</i></p> <ol style="list-style-type: none"> <li>Enhanced audit processes have been initiated to provide reports to the Records and IT Divisions of ALL outstanding reports not submitted (in error) to TBI.</li> <li>Enhanced audit processes have been initiated to provide reports to the Records and IT Divisions that detail missing/incorrect date data.</li> <li>Enhanced audit processes have been initiated to ensure only MNPB, Berry Hill, and Metro Parks (Metro recently incorporated the City of Lakewood) reports are submitted to TBI.</li> <li>Enhanced audit processes have been initiated to compare incident status data, validation data, and incident entry data to TBI in order to verify accurate data was submitted to TBI, and is maintained by MNPB.</li> </ol> <p>4. Audit trails exist which would identify such changes when the application is used. Programmers using the database left no audit trail. This has been corrected with ARMS/AFR.</p> <p>5. Audit trails exist which would identify such changes when the application is used. Programmers using the database left no audit trail. This has been corrected with ARMS/AFR.</p> <p>6. Issues identified here have been addressed. Enhanced audit processes to ensure verification under review.</p> <p>7. Enhanced audit processes have been initiated to identify incidents in which no link occurs between the victim(s) and the offense(s). In addition, ARMS performs a self-validation</p>		<p>and create new protocols to identify possible sites for data error, both internally and in TBI submissions. Reconciliation reports ran last month show a 0.28% error rate.</p>

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7. Develop a mechanism to ensure all incident report fields, particularly the offense codes, are entered into the Advanced Records Management System.	routine on incidents requiring certain fields to be checked.		